Subpart E—Alternative Method for Measurement of Vessels

§ 135.41 Measurement of vessels when volume information is not available.

When an ITC 69 or suitable substitute and documentation for the calculation of the VMC are not presented, or when the certificate, substitute or VMC documentation presented does not meet accuracy standards acceptable to the Commission, vessels will be measured in a manner that will include the entire cubical contents of V and VMC as defined in this part. The Commission shall endeavor to determine an accurate total volume of the vessel using the best information available at the time of the determination. The total volume shall be calculated by generally accepted methods for the space concerned and with an accuracy acceptable to the Commission.

[59 FR 43255, Aug. 22, 1994, as amended at 61 FR 60612, Nov. 29, 1996]

§ 135.42 Measurement of vessels when tonnage cannot be otherwise ascertained.

(a) Vessels without an ITC 69, a suitable substitute or documentation from which to calculate total volume shall be measured as follows:

(1) The volume of structures above the upper deck may be determined by any accepted method or combination of methods. These methods include but are not limited to simple geometric formulas, Simpson's rules, and other standard mathematical formulas. If special procedures are used, they should be identified. In all cases, measurements and calculations should be sufficiently detailed to permit easy review.

(2) The volume of the hull below the upper deck (UDV) shall be determined as follows:

(i) The formula:

$$UDV=\{0.91 \times [(LOA \times MB) \times (D-SLD)]\} + (SLDISP/1.025)$$

Where:

UDV=Total volume of all enclosed spaces below the upper deck in cubic meters.

LOA=The Length overall, i.e., the length of the ship in meters from the foremost to the aftermost points, including a bulbous bow if present.

MB=Moulded breadth in meters as defined in § 135.12(c).

D=Moulded depth in meters as defined in § 135.12(b).

SLD=Summer loaded draft (in meters), i.e., the maximum depth to which the vessel's hull may be immersed when in a summer zone.

SLDISP=Summer loaded displacement, i.e., the actual weight in metric tons of the water displaced by the vessel when immersed to her SLD.

(ii) If § 135.42(a)(2)(i) proves unworkable, the total volume of the hull below the upper deck shall be determined by multiplying the product of the LOA, MB and D by the appropriate coefficient listed in the following table:

LOA in meters	Coefficient
0 to 30	.7150
> 30 to 60	.7250
> 60 to 90	.7360
> 90 to 120	.7453
> 120 to 150	.7328
> 150 to 180	.7870
> 180 to 210	.8202
> 210 to 240	.7870
> 240 to 270	.7328
>270	.7453

(3) The total volume of a vessel is the sum of the volume of the structures above the upper deck as determined in accordance with § 135.42(a)(1) and the volume of the hull below the upper deck as determined in accordance with § 135.42(a)(2) (i) or (ii).

(b) Vessels which have had their total volume determined in accordance with § 135.41 or this section may apply for readmeasurement when they have a new or corrected ITC 69, a suitable substitute or present documentation sufficient to calculate total volume.

(c) VMC may be determined by any accepted method or combination of methods, including but not limited to, simple geometric formulas, multiplication of a container by 29.2 m^3, or other standard mathematical formula. The on-deck container capacity of a vessel for VMC purposes will be determined by the Commission.

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